

REMARKS

Applicant submits this response to the Office Action mailed October 12, 2006.

Attached is a request for one month extension of time to respond.

At the outset, applicant has amended the claims to remove the "at least 20 ppm" language and substituted it with "about 20 ppm". Further, applicant has incorporated the 500 ppm upper limit as suggested by the Examiner. Finally, applicant has clarified that the treat rate is wt% of manganese to the coal. In view of the foregoing, applicant submits that the new matter concerns of the Examiner are traversed.

With respect to the obviousness-type double patenting, applicant notes that its last statement indicated that it would be willing to consider the necessity of a Terminal Disclaimer upon an indication of allowable subject matter in the present application. In order to affirmatively respond to the Examiner's request, applicant hereby states that it will file a Terminal Disclaimer with respect to this application upon an indication of allowable subject matter in the present application. Accordingly, the obviousness-type double patenting rejection will be traversed upon an indication of subject matter that is otherwise allowable in the present application.

With respect to the substantive rejections, applicant notes with appreciation the detailed consideration and analysis that the Examiner has given. Unfortunately, applicant believes there continues to be some misunderstanding of the present invention at a very fundamental level.

Applicant's invention is directed to lowering the amount of carbon in ash from the combustion of coal. In the most basic terms, coal is made up of carbon and ash. Importantly, the carbon that is in coal is both available for combustion and, separately, bound in part inside the ash particles. Stated another way, the carbon that makes up

coal is embodied by both the available carbon and the carbon in ash. These are two different types of carbon based on their availability to be combusted. During the combustion process, much, but not all, of the available carbon in coal is combusted. With respect to the carbon in ash fraction of the carbon in the coal, the amount of carbon that is combusted is very low. At a very physical level, the carbon is “trapped” or bound inside the ash.

The present invention is directed to combusting, i.e., lowering the amount of carbon in ash. The present invention is not directed to the effects, if any, of the claimed additive with respect to the combustion of the available carbon. As explained in detail in the present application, the amount of carbon and ash is reduced in accordance with the present invention through the use of an organometallic manganese compound in a relatively high dose (about 20-500 ppm). Both the organometallic and high dose aspects of the additive are important. As noted in the application, naturally-occurring coal inherently includes significant deposits of inorganic manganese. Despite the presence of this manganese, the amount of carbon in ash that is reduced by the present invention is significant -- as shown in the example, there is a 28% lowering of carbon in ash through the use of the organometallic manganese additive. Likewise, the high-dose of 20 ppm (see example in application) or more is proven to be a successful way to reduce carbon in ash. While lower treat rates are speculated to have some positive effects. The undisputed positive effect of using a high dose (about 20 ppm) of organometallic manganese additive is proven in the example to significantly lower carbon in ash.

In view of the foregoing fundamental explanation of the physical attributes of coal and of the combustion process, applicant believes that its existing arguments of

distinction and differentiation from the cited references are compelling arguments. For all of the reasons already of record in previous amendments and responses, applicant submits that the present invention is nowhere disclosed in any prior art reference.

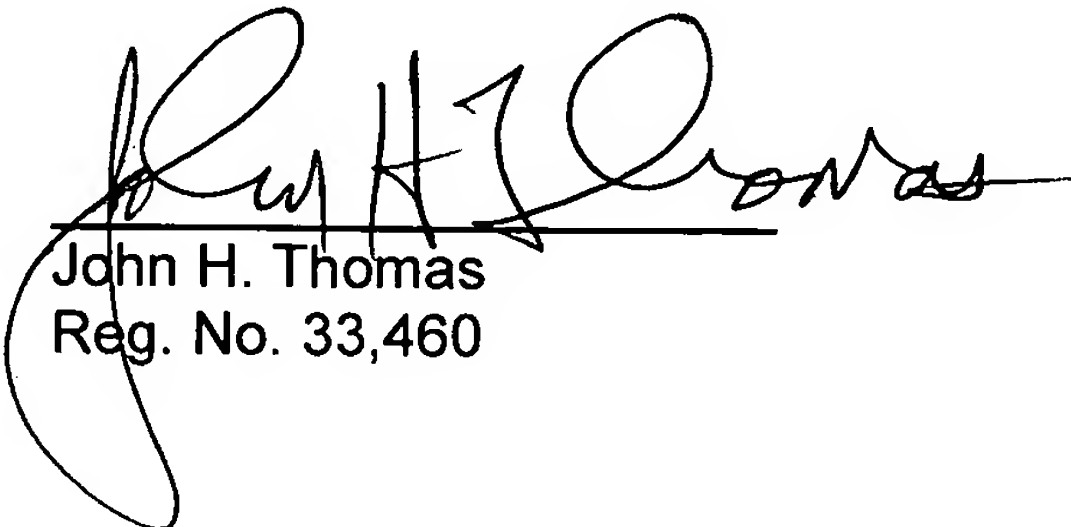
Therefore, there is no anticipation of the present invention. Further, applicant submits that no reasonable interpretation or combination of prior art references is entitled to find the claimed invention obvious. The combinations of references cited by the Examiner as well as the assumptions with respect to disclosures in the prior art references are only justified based on hindsight. There is no fair reason for the stated combinations. In view of the foregoing understanding of the present invention, applicant submits that all of the rejections are traversed. Favorable action is requested hereon.

The Commissioner is hereby authorized to charge any deficiencies in payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-2127 (NM 7592):

Respectfully submitted,

Date: February 9, 2007

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the appropriate address at the U.S. Patent and Trademark Office required under 37 C.F.R. § 1.1(a) on February 9, 2007.

By: 

John H. Thomas